

Application No. 10/771,835
Amendment dated August 16, 2006
Reply to Office Action of March 22, 2006

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

What is claimed is:

1. (currently amended) A device for use in an endodontic root canal, performed using a dental drill hand set, said device comprising:

a first upper unit coupled to said drill hand set, said first upper unit being cylindrical in shape and having a first drill shank shaft therethrough and wherein said first upper unit has a first threading on its outside surface; and

a second bottom unit being cylindrical in shape and having a second drill shank shaft therethrough, said second bottom unit has a second corresponding threading on its inside surface, wherein when said second bottom unit is screwed onto said first upper unit a root canal jig is formed having a set height, said root canal jig having a series of adjustment markers, positioned on said first upper unit of said root canal jig, said adjustment markers configured to denote the combined height of said root canal jig from the bottom of said second bottom unit to the top of said first upper unit. [[and]] allowing a shank from said drill hand set to pass through said first and second drill shank shafts, such that when said drill shank of said drill hand set is drilled into an affected tooth for a root canal, said drill shank is prevented from drilling along its entire length into the root of said affected tooth when the bottom of said root canal jig contacts the top of the tooth,

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wherein said root canal jig is set to a particular height such that the combined height of said root canal jig added to the total depth of the root of the affected tooth is equal to the total length of the drill shank that extends beyond the bottom of said drill hand set such that when a dentist is drilling said root of said affected tooth, the amount of said drill shank that extends below the bottom of said root canal jig is equal to the depth of said root being drilled.

2. (currently amended) The device as claimed in claim 1, further comprising a locking ring, having a third corresponding threading located on its inside surface, configured to screw down along said first upper unit of said root canal jig down onto a top of said second bottom unit of said root canal jig, so as to prevent any relative movement between said upper first unit and said lower bottom unit of said [[toot]] root canal jig.

3. (original) The device as claimed in claim 1, further comprising a primary maker, positioned on said second bottom unit of said root canal jig, said primary marker configured to display the height of said second bottom unit.

4-5. (cancelled)

6. (currently amended) A device for use in an endodontic root canal, performed using a dental drill hand set, said device comprising:
a jig ring having a drill shank opening, configured to rest on the top of the

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affected tooth to be drilled;

a stem, coupled to said jig ring; and

a housing, coupled to said drill hand set, said housing configured to secure said stem therein, such that the bottom of said jig ring, coupled to said stem, can be secured from the bottom of said housing, proximate to the drilling end of said drill hand set at a series of varying heights, said housing having a notch opening having a plurality of dimple acceptors therein, each of said dimple acceptors having a corresponding measurement associated therewith.

7. (original) The device as claimed in claim 6, wherein said jig ring is a horseshoe ring.

8. (original) The device as claimed in claim 6, wherein said stem is constructed of a sturdy, flexible nickel-titanium alloy.

9. (cancelled)

10. (currently amended) The device as claimed in claim [[9]] 6, wherein said stem further comprises a spring flange, and wherein said housing further comprises a biasing spring, wherein said biasing spring acts on said spring flange of said stem, forcing said stem into said housing, in direction away from the drilling end of said drill hand set.

11. (original) The device as claimed in claim 10, wherein said stem further

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comprises a dimple, said dimple being configured to fit within one of said dimple acceptors, having a corresponding measurement equal to a desired height measurement, said desired height measurement being equal to the distance between the bottom of said jig ring and the edge of the drilling end of said drill hand set.

12. (original) The device as claimed in claim 6, wherein said housing further comprises a height dial having a plurality of incremented height measurements marked thereon.

13. (original) The device as claimed in claim 12, wherein said stem further comprises a spring flange, and wherein said housing further comprises a biasing spring, wherein said biasing spring acts on said spring flange of said stem, forcing said stem into said housing, in direction away from the drilling end of said drill hand set.

14. (original) The device as claimed in claim 13, wherein said housing further comprises a toothed bar, positioned within said housing on the side of said spring flange opposite said biasing spring, and wherein said height dial further comprises a toothed wheel engaged with said tooth bar.

15. (original) The device as claimed in claim 14, wherein a desired height measurement is selected, said height dial is rotated to the correct incremental measurement thereon, thus turning said attached toothed wheel and moving said engaged toothed bar, forcing said stem out of said housing to said desired height measurement,

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said desired height measurement being equal to the distance between the bottom of said jig ring and the edge of the drilling end of said drill hand set.

16. (original) The device as claimed in claim 6, wherein said housing further comprises a height screw associated with a plurality of incremented height measurements marked on said stem and viewable through a height window in said housing.

17. (original) The device as claimed in claim 16, wherein said stem further comprises a spring flange, and wherein said housing further comprises a biasing spring, wherein said biasing spring acts on said spring flange of said stem, forcing said stem into said housing, in direction away from the drilling end of said drill hand set.

18. (original) The device as claimed in claim 17, wherein said housing further comprises a threaded screw bar, positioned within said housing on the side of said spring flange opposite said biasing spring, and wherein the threading within said height screw is engaged with said threaded screw bar.

19. (currently amended) The device as claimed in claim [[19]] 18, wherein a desired height measurement is selected, said height screw is rotated until the desired height measurement is indicated in said height window, thus moving said threaded screw bar, forcing said stem out of said housing to said desired height measurement, said desired height measurement being equal to the distance between the bottom of said jig ring and the edge of the drilling end of said drill hand set.

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20. (currently amended) A device for use in an endodontic root canal, performed using a dental drill hand set, said device comprising:

a root canal jig having a top and bottom and an adjustable height, said top of said root canal jig being attachable to said dental drill hand set, said root canal jig having a series of adjustment markers, positioned on said top of said root canal jig, said adjustment markers configured to denote the combined height of said root canal jig, said root canal jig configured to allow a drill shank to pass therethrough, wherein said root canal jig is configured to allow a portion of said drill shank, less than the total height of said drill shank, to be exposed out from said bottom of said root canal jig, such that when said bottom of said root canal jig contacts the top of an affected tooth, said drill shank is prevented from drilling any further into said affected tooth, wherein said root canal jig is set to a particular height such that the combined height of said root canal jig added to the total depth of the root of the affected tooth is equal to the total length of the drill shank that extends beyond the bottom of said drill hand set such that when a dentist is drilling said root of said affected tooth, the amount of said drill shank that extends below the bottom of said root canal jig is equal to the depth of said root being drilled.